

REMARKS

Minor amendments have been made to the specification to correct obvious typographical errors. If there are any issues that the Examiner would like to discuss prior to issuing a Notice of Allowance, please telephone the undersigned at 408-294-6750 to expedite allowance.

Respectfully submitted,

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Date

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AMENDMENTS TO SPECIFICATION PARAGRAPHS SHOWING DELETIONS WITH STRIKETHROUGH AND INSERTIONS UNDERLINED

At page 4, lines 24-26:

Preferably two moveable rolls and their associated controllers are provided on a reversing mill, one reducing the tension variations of the uncoiling product and one reducing the tension variations of the coiling product.

At page 4, line 27 to page 5, line 4:

According to a second aspect of the invention we provide a method of handling a metal strip, the method comprising providing a first coiler and a second coiler, and ~~in~~ a metal strip, passing the metal strip from a first coiler to a second coil r, a strip path for the metal strip being defined between a first location and a second location, a moveable roll contacting the metal strip between the first location and second location, the method including measuring the angular position of at least one of the coilers and moving the moveable roll so as to change the length of the strip path, the moveable roll being moved as a function of the angular position of at least one of the coilers.

At page 7, lines 1-21:

The invention may further provides one or more methods by which the system ~~the~~ corrects the calculated eccentricity amplitude to give a corrected eccentricity amplitude. The method may correct the calculated eccentricity amplitude by measuring the rotational speed of the coiler. A decrease in speed of the coiler corresponding to the strip being applied over the location of eccentricity preferably results in a corrected eccentricity amplitude which is greater than the calculated eccentricity amplitude. Preferably an increase in the rotational speed of the coiler at an angular position where the strip is applied over the location of the eccentricity results in a corrected eccentricity amplitude which is lower than the calculated eccentricity amplitude. The calculated eccentricity amplitude may be corrected by measuring the tension in the strip and/or by measuring the load on the moveable roll. Preferably the method provides that if the tension in the strip increases and/or the load on the roll increases as the strip is applied over the position of the eccentricity then the corrected eccentricity amplitude is greater

than the calculated eccentricity amplitude. Preferably the method provides that if the tension is reduced and/or the load on the roll is reduced as the strip is applied over the location of the eccentricity then the corrected eccentricity amplitude is less than the calculated eccentricity amplitude. The calculated eccentricity amplitude may be corrected by measuring the coil diameter and particularly the coil diameter for the eccentricity.

At page 11, lines 13-15:

One method of reducing the tension variations caused by coil eccentricity which appears in the prior art is the use of pinch rolls such as the rolls 3a and 3b in FIG. 4 4 in a force or pressure control mode.

At page 11, lines 16-27:

FIG. 4 4 shows one embodiment of an apparatus which comprises a pinch roll unit (3a or 3b) employed in removing tension variations in the Steckel mill (4) rolling process. The pinch roll unit (3a) mounted on the entry side of the mill has a similar counterpart on the opposite side of the mill (3b). The steel strip passes from the entry coiling furnace (1a) to the exit coiling furnace (1b) via the entry deflector roll (2a), the entry pinch roll unit (3a) through the mill stand (4), the exit pinch roll unit (3b), exit deflector roll (2b) and into the exit coiling furnace (1b). After rolling a complete pass in one direction the mill (4) reverses and the process is repeated in the opposite direction. The sequence of forward and reverse passes finishes when the strip is reduced in thickness to the required final thickness.

At page 14, lines 16-28:

One possible method of obtaining a tension measurement signal would be to install load cells above the ~~detector~~ deflector rolls 2a and 2b. If the true coil eccentricity amplitude is larger than the predicted amplitude then the tension will tend to increase as the strip passes over the coiler drum slot whereas if the predicted amplitude of the coil eccentricity is greater than the actual amplitude then the movement of the pinch roll will be too large and the tension will tend to decrease as the strip passes over the coiler

drum slot. Consequently a positive correlation between the tension signal and the pinch roll movement would indicate that the amplitude of the eccentricity is greater than that originally predicted whereas a negative correlation would indicate that it is smaller than originally predicted. In either case the predicted amplitude can be adjusted accordingly.